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TITLE: METHOD FOR BRAZING ALUMINUM PARTS
AND BRAZING FILLER METAL USED FOR THIS

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ABSTRACT:

PURPOSE: To shorten heating time and to improve productivity by supplying a brazing filler metal mixed with Ni powder and/or Fe powder to an aluminum alloy brazing filler metal, melting the brazing filler metal by induction-heating and joining the aluminum parts.

CONSTITUTION: An aluminum-made pipe 1 is inserted into the joining part of an aluminum-made flange 2 and the brazing filler metal 3 is supplied on the outer periphery of the pipe 1 at the end part of the flange 2. A heating coil 4 is arranged on the outer periphery of the joining part

and high frequency
current is conducted to thus heating coil 4 and the Ni
powder or the Fe powder
in the brazing filler metal is heated by high frequency
induction to melt the
brazing filler metal 3 and the brazing is executed. As the
pipe 1 and the
flange 2, A6063 material is used and as the aluminum alloy
brazing filler
metal, BA4047 material is used and the Ni powder (50%) is
mixed with the filler
metal and the result is sintered to make the brazing filler
metal 3. By this
method, the heating time required for the brazing is
shortened and the
productivity is improved and the brazing strength is
improved.

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